

POISONOUS SNAKES of CENTRAL AND SOUTH AMERICA

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SOME FACTS ABOUT POISONOUS SNAKES

Almost everyone is afraid of snakes. Even the harmless kinds are regarded with loathing and often with terror. Fear of snakes is caused partly by our unfamiliarity with them but mostly as the result of a lot of nonsensical fiction and misinformation.

No one expects you to love snakes. It is a good idea to leave them alone. But there is no need for you to fear snakes once you know something about them, their habits, how to identify the dangerous kinds, the simple precautions to take to prevent snakebite and the first aid measures to use in the very rare emergency of being bitten.

Actually, the chances of being bitten by a poisonous snake are very small. For example, deaths from lightning in the United States amount to almost three times the deaths caused by snakebite. In Australia, where there are many kinds of poisonous snakes, the death rate from snakebite averages only 12 persons per year out of a population of 6,500,000. The danger of death from snakebite is considerably less than the possibility of being killed in a jeep wreck or getting shot by accident.

You can dismiss as exaggerations most of the popular literature you've read and the stories you've heard about snakes. Don't believe all the hair-raising tales about the number, size and ferocity of the local snakes in the area where you are based. Natives know all the poisonous kinds but, in addition, they will tell you that many harmless species are deadly. For example, in the United States, the common little puff adder is considered almost universally to be dangerous. This is nonsense; the puff adder is non-poisonous and will hardly ever bite.

Statistics on the number of people bitten by poisonous snakes are unreliable. This is especially true in the wilder areas where dangerous snakes are most numerous. Furthermore, the fatalities are almost always among people who go about barefoot and get bitten on the feet or ankles. For a soldier wearing shoes and leggings, living in a camp where any snake that is seen is promptly killed, the danger of being bitten by a poisonous snake is small compared to the hazards of malaria, cholera, dysentery or other diseases. Mosquitoes are a thousand times more dangerous than snakes.

Soldiers living in camps and barracks, even where snakes are relatively plentiful, may seldom see one. Men working or fighting in the jungle may see them occasionally. Those engaged in clearing ground, cutting grass or jungle, or digging up soil may see a good many snakes, but the chances of getting bitten by a poisonous kind are very small.

There are many reasons why snakes are a minor hazard. First of all, most snakes are harmless. Then, too, snakes are not numerous. Because all snakes feed on other animals, such as rats, rabbits or birds, each snake must have a fairly large area for his hunting ground in order to find enough food. This limits the number of snakes. Furthermore, the danger from most of the few poisonous kinds of snakes is much overrated. It depends mainly on the size

of the snake. Usually, only a large specimen, over two feet long, is really dangerous to a grown man, and these large extremely dangerous snakes are not common. The bite of the smaller snakes is not likely to be fatal.

In addition, nearly all snakes avoid man if possible. It is reported that the king cobra of Southeast Asia, the bushmaster and the tropical rattlesnake of South America, and the mamba of Africa sometimes aggressively attack man, but even these snakes do so only occasionally. Most snakes get out of the way (some of them do it slowly) and seldom are seen.

The distance at which a snake may bite has often been exaggerated. This striking distance seldom is more than half the snake's length; in the large snakes, about a third of the length, and in some snakes, even less. However, some of the small vipers have been known to strike their full length. The distance a cobra can strike is easy to judge since the part raised is never bent into deceptive S-curves but merely is jabbed forward and downward; commonly the distance is almost one foot; in a 12-foot king cobra the striking distance may be as much as 3 feet. Generally, you must be at least within a long step of even a large snake before he can bite you; a normally alert person will be able to see the snake before he gets within striking range. Most bites occur when a snake is stepped on by accident.

All these facts do not mean that no soldier is going to be bitten or that poisonous snakes are harmless creatures which will make fine pets. It is stupid and highly dangerous for an inexperienced person to pick up a snake unless he is positive the snake is harmless.

No man need fear snakes who knows these facts about them. You can minimize the possibility of being bitten by keeping your eyes open, by keeping your hands off *all* snakes, by learning how to identify the dangerous kinds in your own local area, by following the simple precautions for avoiding snakes, and by knowing what to do in the very rare event you are bitten.

Identification of Kinds of Poisonous Snakes

It is not easy to identify a poisonous snake. There is *no single* characteristic which distinguishes a poisonous snake from a harmless one except the presence of poison fangs and glands. You can determine the presence of these parts without danger only in dead specimens, and even then the fangs may be hard to find.

The notion that all poisonous snakes have lance-shaped or triangular heads or some other warning feature is wrong and dangerous. While it is true that many dangerous snakes do have a lance-shaped head, many do not.

The only sure way to identify dangerous snakes is to learn to know and recognize the poisonous kinds on sight in the particular area in which you happen to be based. The inside of this bulletin illustrates and describes the important kinds found in your area. In any given locality you are not likely to see more than one or two kinds and you can learn to identify them further by studying dead specimens. The ability to distinguish a poisonous snake from a harmless one will minimize the danger of snakebite and help to eliminate fear.

About Pythons

Although they are not poisonous, it is worth knowing some facts about pythons, boas and other constrictors. Some of these are large snakes which may grow to 25 feet in length. In spite of the many hair-raising tales concerning these reptiles, they are timid and rarely, if ever, attack man. Boas are found in the American tropics; pythons occur in the tropics of Africa and Asia. They sometimes attack small children but will not deliberately tackle anything that is too big to swallow. A man is too big for even the largest python. If caught or cornered, these snakes may fight back by wrapping their coils around the attacker. If left alone, they are about as dangerous as a collie dog.

DISTRIBUTION OF POISONOUS SNAKES OF CENTRAL AND SOUTH AMERICA



Rattlesnakes: Found from Southern Mexico down to about 32° S. latitude. Occur in dry hilly country but not in tropical rain forests. Have not been found in Panama or in the Amazon Basin.

Bushmasters: Found at low altitudes on both coasts of eastern Costa Rica south to the coast of Brazil, along the state of Bahia, and on Trinidad.

Fer-de-Lance Group: Found in Martinique, St. Lucia, Trinidad, Southern Mexico and all of Central America and South America with the exception of all of Chile and the Andean highlands above 10,000 feet.

Coral Snakes: Found in all of Mexico, Central America, South America and Trinidad, down to and including the territory of Rio Negro in Argentina.

Sea Snakes: Found in the waters of the Pacific Coast from the Gulf of California to Ecuador.

There are no poisonous snakes in all of the Caribbean Islands, except Martinique, St. Lucia and Trinidad. Chile and the Andean highlands above 10,000 feet have no poisonous snakes.

Precautions Against Snakebite

Always wear shoes and leggings or high boots in areas where snakes are common—most snakebites occur below the knee.

Don't walk around barefoot, especially at night.

Don't poke your hands into holes in the ground. Wear gloves and take special care when clearing ground or brush. Watch where you put your hands in rocky places or on stone walls. Look before you touch—many snakebites occur on the hands.

Don't handle a live snake or play with it unless you are absolutely certain the snake is harmless. It takes an expert to handle a dangerous snake. You flirt with death when you pick up an unknown snake.

Keep your eyes open—develop "snake sense". You must be within a long step of even the largest snake before it can bite you. Alertness pays off in safety.

FIRST AID FOR SNAKEBITE

The first problem in treating snakebite is to determine whether it has been caused by a poisonous snake. Many harmless snakes will bite in self-defense. The only reliable way to tell whether the snakebite is poisonous is to identify the snake. However, the wound itself may give some clues.

One good indication of the bite of a poisonous snake is the intense pain which results almost immediately. A severe bite from a harmless snake will hurt no more than a wound made with any sharp instrument. The bite of a viper will cause immediate swelling. A cobra bite may have no local symptoms except for an intense burning pain in the area of the wound.

The appearance of the wound gives additional clues. Vipers do not really "bite". They stab with their fangs. The wound usually consists of two small punctures, generally half an inch or more apart. Sometimes there may be only one puncture if the snake partially misses or has one fang missing. Coral snakes, cobras, mambas and kraits often hang on and chew; the result may be one, two or more puncture marks. Harmless snakes usually have several teeth so that a bite may consist of several punctures formed in a semi-circle. However, it is not always easy to distinguish for certain between the bites of a harmless and a poisonous snake.

If you are bitten by a harmless snake, treat with iodine as an ordinary wound. If the bite is identified as that of a poisonous snake and you can get to a medical officer in a few minutes, apply a tourniquet and let the medical officer administer first aid. If no expert medical aid is available, undertake the following first aid measures immediately—*speed is essential*.

* * *

Place a tourniquet tightly above the bite. Loosen the tourniquet every 15 minutes for one minute at a time.

* * *

Wipe the skin around the bite free of dripped venom. Sterilize skin with antiseptic, such as tincture of iodine.

* * *

Sterilize a sharp knife or razor blade by holding it in the flame of a match or wiping with iodine. Make an x-cut through each fang mark; in fleshy tissue, make each cut about $\frac{1}{2}$ inch long and $\frac{1}{4}$ inch deep; in thin tissue over bones make shallow cuts parallel to bone. Be careful not to cut large blood vessels, tendons or nerves.

* * *

Suck the venom out of the wound. Use a snakebite pump, if available, or cup the mouth of a heated bottle over the wound. If no equipment is available, suck with the mouth through a rubber tissue laid over the bite or suck with the mouth directly on the bite—be sure to spit out the venom and rinse out the mouth periodically. The venom will do no harm unless there are sores in the mouth. Keep up the suction until the swelling ceases to progress.

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If possible, kill the snake and take it to the medical officer so that he can tell what kind of antivenin to use.

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Give morphine to relieve pain. Don't give alcohol under any circumstances.

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Don't put anything into the wound. Potassium permanganate or other chemicals do more harm than good.

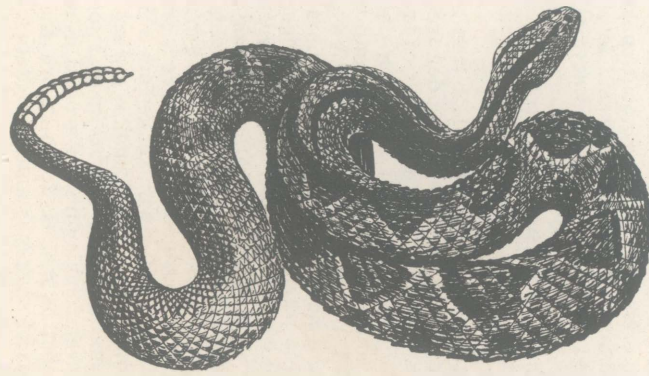
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Carry the victim to a medical officer. Don't let him run or even walk.

THE POISONOUS SNAKES OF CENTRAL AND SOUTH AMERICA

IDENTIFICATION AND HABITS

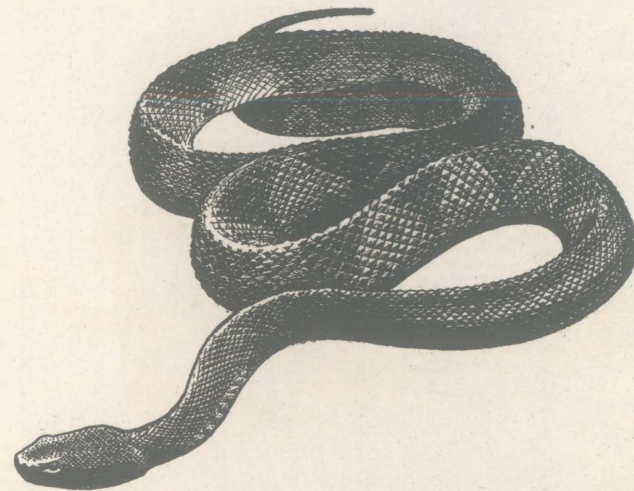
THE PIT VIPER FAMILY



RATTLESNAKES

Description: Of the five kinds of rattlesnakes in this area, only the tropical rattlesnake (shown) is widely distributed. This snake and its close relatives are large snakes, averaging about 5 feet long. The characteristic tropical rattlesnake has a pair of dark stripes extending along the neck, with geometrical body markings. The Mexican rattlesnake is similarly marked but without the dark stripes. A smaller rattlesnake, found on Aruba Island, has a pale gray back and a white belly. The rattle on the tip of the tail is sufficient identification for all the rattlesnakes.

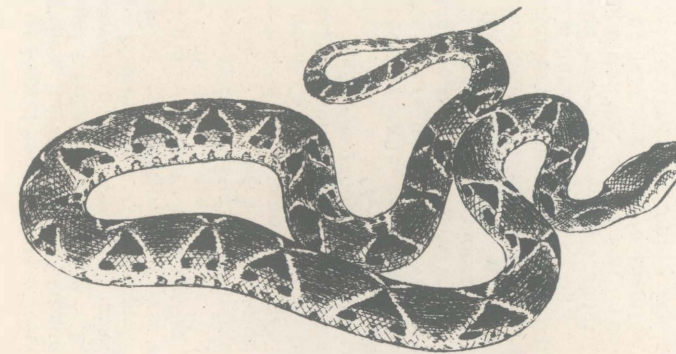
Habits: The tropical rattlesnake is a vicious reptile. It is large and aggressive and its venom is highly poisonous. This snake may strike with very little warning rattle and before coiling. If teased it may advance toward the tormentor. It is found only in dry, hilly country, not in thick forests. The tropical rattlesnake is also known as the "cascabel" in Mexico and Central America and as the "cascavel" in Brazil.



BUSHMASTERS

Description: This is a large snake with a moderately slender body and a head much wider than the neck. It averages from 7 to 9 feet in length but may grow longer than 11 feet. It is light-brown with a pinkish hue and has a series of dark blotches which are wide on the back and narrow down the sides. The scales are extremely rough and raised like the teeth of a rasp.

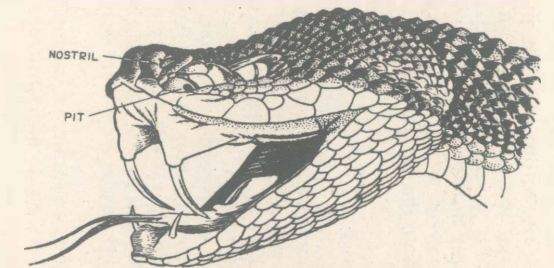
Habits: The bushmaster is found mostly in forests at low altitudes. It prefers dry ground and often hides in animal burrows. When lying on the forest floor its camouflage is hard to see. The snake may either remain motionless until touched or it may attempt to escape when cornered. It may strike viciously; sometimes it may even edge towards an intruder. The tail is vibrated when the snake is irritated and if it rattles among dry leaves, the snake may be mistaken for a rattlesnake. The bushmaster is a savage and dangerous snake, but it seldom is seen. The best precaution is to wear boots and to keep bare hands out of holes and brush close to the ground.



FER-DE-LANCE GROUP

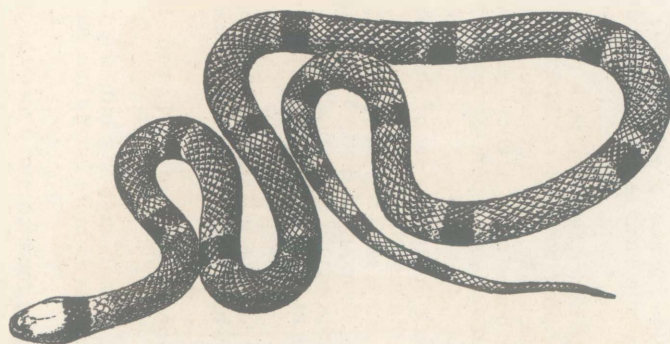
Description: There are several closely related species in this group. The fer-de-lance and about six of its relatives are gray to brown or reddish in color, with dark geometrical blotches which generally are narrow on the back and broad at the sides. It is a moderately thick snake with a head which is much wider than the neck. The fer-de-lance averages about 3 to 4 feet long but may grow as large as 8 or 9 feet. Some members of the group are smaller and display almost any color, including green or yellow; some have thick bodies. The fer-de-lance is also known as the "barba amarilla".

Habits: This group of snakes is widespread throughout Central America and South America. The large kinds are ground snakes; some of the small kinds, known as palm vipers, live in trees, especially at the base of the leaves of a palm tree. The larger snakes are dangerous. They may be common in certain areas and are found often in cane fields or around dwellings where they come to catch rats. This snake loops its body before striking.



POSITIVE IDENTIFICATION FOR THE PIT VIPER FAMILY

The rattlesnake, the bushmaster and the fer-de-lance group are all related pit vipers. All have two long fangs in the upper jaw and have no other teeth of comparable size. The two long fangs may be covered with a curtain of flesh or they may be folded back in the mouth. Another characteristic of these snakes is the presence of a deep pit between the eye and the nostril.



CORAL SNAKES

Description: These snakes are brightly colored in combinations of red, black, yellow or white, with bands of color running completely around the body. Coral snakes average about 2 feet in length but may attain a maximum of 4 feet. The fangs are very small and difficult to find so that positive identification is not easy. There are about 40 different kinds of coral snakes.

Habits: These snakes can be found in almost every type of terrain. However, they live mostly underground and have a lazy and gentle disposition. The venom is highly poisonous and a bite can cause death. Coral snakes do not coil and strike in the manner of the pit vipers; they remain flat on the ground and bite by twisting the head to one side if they are picked up or stepped on. Coral snakes are not dangerous except to a barefoot man.

SEA SNAKES

Description: This snake is found only in salt water and occurs on the Pacific Coast from the Gulf of California to Ecuador. It is sometimes very abundant in the Gulf of Panama. It is not found in the Atlantic Ocean. The sea snake of this area has a brown to black back and a yellow belly. The tail is flattened like an oar. The sea snake can be distinguished from an eel by the fact that the snake has scales and the eel does not. Sea snakes may average from 2 to 3 feet long.

Habits: The sea snake is found in salt or brackish water near the coast. Its bite is dangerous but very rare. Occasionally one may be caught in a fishing net; it should be carefully discarded. The snake has not been known to attack a man swimming and there is little cause for fearing it. Even where it is abundant there is no need to worry.

